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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,651	10/07/2005	Dietmar Gentsch	71872 US	2644
7590 11/23/2009				
Michael M. Rickin ABB Inc., Legal Department-4U6 29801 Euclid Avenue Wickliffe, OH 44092-1832			EXAMINER WOOD, ELLEN S	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 11/23/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/552,651

**Applicant(s)**

GENTSCH, DIETMAR

**Examiner**

ELLEN S. WOOD

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4 and 6-25 is/are pending in the application.  
4a) Of the above claim(s) 17-25 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 2, 4 and 6-16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

1. Applicant's arguments, filed 07/16/2009 with respect to claims 1, 2 and 7 have been fully considered and are persuasive. The rejection of claims 1, 2, and 7 under 35 U.S.C. 102(b) as being anticipated by Vanaglash (US 3,933,712) has been withdrawn.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, and 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanaglash (US 3,933,712) in view of Nonken (US 3,812,314).

In regards to claims 1-2, Vanaglash discloses an encapsulating material that is used in electrical components (col. 1 lines 7-12). The encapsulating material has desirable electrical and mechanical properties for encapsulating electronic components and integrated circuits (col. 2 lines 24-28). The encapsulating material is a mixture of glass sphere fillers with a predetermined distribution of external diameters (col. 4 lines 52-68).

In regards to claim 7, Vanaglash discloses that aluminum oxide, silica or calcium carbonate can also be used (col. 5 lines 22-24), thus balls composed of ceramic.

Vanaglash is silent with the method in that a plurality of switching chambers with a cast surround composed of a first encapsulation compound, then encapsulating the

plurality of switching chambers together with connections into a block composed of at least one second encapsulation compound thus creating a direct encapsulation of components.

Nonken discloses a molded plastic bushing for high electrical power applications is provided with an encapsulated vacuum (abstract). A plurality of vacuum switches are encapsulated in a molded bushing, thereby to afford a combination of switching functions and circuit connections (col. 2 lines 39-41). The bushing comprises an elongated, molded housing of electrically insulated epoxy resin (col. 2 lines 65-67). The wall member (first encapsulation) is coated with either a cured or uncured layer of bonding material of "soft" epoxy prior to molding the epoxy resin (second encapsulation) around the vacuum switch (col. 4 lines 49-67). Fig. 3 comprises a multi-terminal high power electrical bushing 1' that has a pair of vacuum switches 4' and 4'' encapsulated within it (col. 7 lines 25-28). The switches are encapsulated with an epoxy resin housing (col. 7 lines 33-35). Thus, a plurality of switching chambers with a cast surround composed of a first encapsulation compound, then encapsulating the plurality of switching chambers together with connections into a block composed of at least one second encapsulation compound thus creating a direct encapsulation of components is formed by Nonken.

It would be obvious to one of ordinary skill in the art to combine the method of forming a switching device as described by Nonken with the epoxy resin of Vanaglash, because the combination would produce a switching device with enhanced mechanical and electrical properties that are used for vacuum switches and electrical components.

***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 2, 4, and 6-16 have been considered but are moot in view of the new ground(s) of rejection.
5. The applicant argues that Nonken, referring to Fig. 3, does not disclose a resilient material 13 (i.e. a first encapsulation compound) surrounding the plurality of switching chambers.

In response, Nonken discloses a plurality of vacuum switches are encapsulated in a molded bushing, thereby to afford a combination of switching functions and circuit connections (col. 2 lines 39-41). Fig. 3 comprises a multi-terminal high power electrical bushing 1' that has a pair of vacuum switches 4' and 4'' encapsulated within it (col. 7 lines 25-28). The switches are encapsulated with an epoxy resin housing (col. 7 lines 33-35). Nonken discloses that a significant aspect of the invention is that a plurality of vacuum switches within a single molded epoxy resin bushing is formed (col. 8 lines 13-18). Thus, Nonken does disclose a resilient material surrounding the plurality of switching chambers.

6. The objection of claim 3, 6, 8, 9, 10, 11, 12, 13, 14, 15 and 16 has been removed based on applicant's amendments.
7. The 35 U.S.C 112 rejection of claim 7 has been removed based on the applicant's amendments.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ELLEN S. WOOD** whose telephone number is (571)270-3450. The examiner can normally be reached on M-F 730-5 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rena L. Dye/  
Supervisory Patent Examiner, Art Unit 1794